

## TITLE

# 5 MICROCHEMICAL METHOD AND APPARATUS FOR SYNTHESIS AND COATING OF COLLOIDAL NANOPARTICLES

## ABSTRACT

10 The present invention represents a radical departure from most conventional  
macro-scale batch processing methods employed to synthesize and coat colloidal  
nanoparticles. Synthesis and coating are in series and *in-situ*, obviating the need for  
numerous cumbersome, and often expensive intermediate-processing steps. In one  
embodiment, the invention is a method and apparatus for synthesizing colloidal  
nanoparticles. In another embodiment, the invention is a method and apparatus for  
15 enabling coating of colloidal nanoparticles using an electrophoretic switch for contacting  
and separating said colloid nanoparticles.

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